

PATENT ABSTRACTS OF JAPAN

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(54) DEVICE FOR TRANSMITTING DATA AND METHOD THEREFOR

(57)Abstract:

PROBLEM TO BE SOLVED: To inhibit radio signal phading by changing an output power.

SOLUTION: This is a radio communication equipment for transmitting control data which is equipped with an output power amplifying means. A prescribed output power level from the output power amplifying means is changed according to a power level sequence for displaying a control message according to a control signal from an output power control means. The prescribed output power level can be selected from a prescribed power level range, and the prescribed output power level can be changed between the power levels of the adjacent prescribed power levels in the prescribed power level range. Generally, the control message is a request for changing the output power level for inhibiting radio signal phading.

JAPANESE

[JP,08-223112,A]

CLAIMS DETAILED DESCRIPTION TECHNICAL FIELD PRIOR ART EXAMPLE DESCRIPTION
OF DRAWINGS DRAWINGS WRITTEN AMENDMENT

[Translation done.]

* NOTICES *

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- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

CLAIMS

[Claim(s)]

[Claim 1]A device changing a predetermined output power level of an output-power amplifying means according to a power level sequence which displays a control message according to a control signal from an output-power control means in radio communication equipment for transmitting control data provided with an output-power amplifying means.

[Claim 2]A device selectable [in the radio communication equipment according to claim 1] from a predetermined power level range in a predetermined output power level.

[Claim 3]A device which the predetermined output power level can change in the radio communication equipment according to claim 2 between power levels of an adjoining predetermined power level in a predetermined power level range.

[Claim 4]A device which a filter is carried out and is formed in radio communication equipment given in any of claims 1-3 they are so that transition between each power level may forbid spectrum extension.

[Claim 5]A device which is an output power level control message for said control message to forbid radio signal phasing in radio communication equipment given in any of claims 1-4 they are.

[Claim 6]A device with which an output power level control message displays a demand on a transmitting means, and only a separate quantity makes transmission power change in the radio communication equipment according to claim 5.

[Claim 7]A device which an output power level control message displays [device] a demand on a transmitting means, and increases or decreases transmission power smoothly in the radio communication equipment according to claim 5.

[Claim 8]A device with which each group is transmitted with each power level according to said power level sequence in radio communication equipment given in any of claims 1-7 they are divided into two or more groups before the transmission in data.

[Claim 9]A device which operates in the radio communication equipment according to any one of claims 1 to 8 so that a control means may control an amplifying means periodically according to said power level sequence.

[Claim 10]In claim 8 which can operate in a GSM wireless telephone network, or radio communication equipment given in 9, A device currently divided into each 10-bit group in order that three guard bits by the side of each [of middle Ambur (midamble) of a data burst] and 57 data bits may transmit with each power level of said power level sequence.

[Claim 11]A device which a power level of said power level sequence has in a power range of 20 dB about said predetermined output power level, and has 2^1 , 2^2 , 2^3 , or the step size of 2^5 dB in radio communication equipment given in any of claims 1-10 they are.

[Claim 12]A device which a power level of said power level sequence has in a range of 4 dB about a predetermined output power level, and has $2^{0.1}$, $2^{0.2}$, $2^{0.25}$, $2^{0.3}$, $2^{0.4}$, or the step size of $2^{0.5}$ dB in the radio communication equipment according to claim 3.

[Claim 13]The substantially same radio communication equipment as what was mentioned above with reference to drawings in each example.

[Claim 14]A method provided with changing a predetermined output power level of a transmitting means in a method for transmitting control data according to a power level sequence which displays a control message between a transmission means and a reception means of a communications system.

[Claim 15]A method selectable [in a method according to claim 14] from a predetermined output level range in a predetermined output power level.

[Claim 16]How to change a predetermined output power level in a method according to claim 15 between power levels of an adjoining predetermined power level in a predetermined power level range.

[Claim 17]A method which a filter is carried out and is formed in a method given in any of claims 14-16 they are so that transition between each power level may forbid spectrum extension.

[Claim 18]How to be an output power level control message for said control message to forbid radio signal phasing in a method given in any of claims 14-17 they are.

[Claim 19]A way said power level control message displays a demand on a transmitting means, and only a separate quantity changes transmission power in a method given in any of claims 14-18 they are.

[Claim 20]How for an output power level control message to display a demand to a transmitting means, and increase or decrease transmission power smoothly in a method given in any of claims 14-19 they are.

[Claim 21]It is the method that it can operate so that it may control according to a power level sequence from which a power controlling means differs an amplifying means in a method

given in any of claims 14-20 they are.

[Claim 22]How for a power level of said power level sequence to be in a power range of 20 dB about said predetermined output power level, and to have 1, 2, 3, or the step size of 5 dB in a method given in any of claims 14-20 they are.

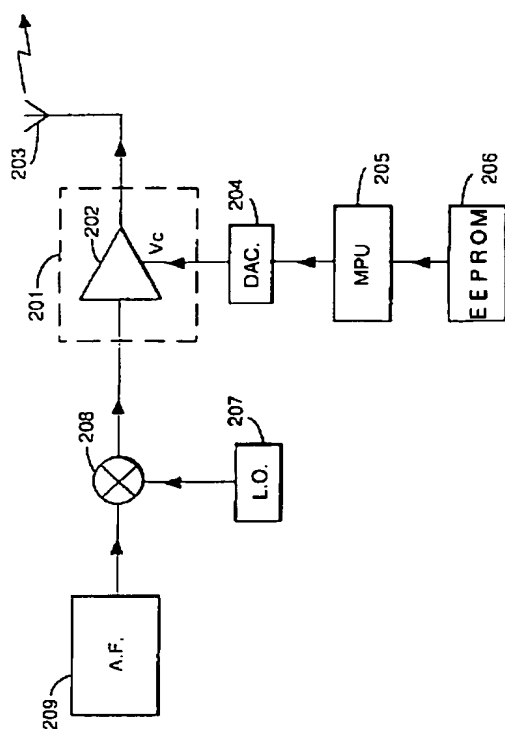
[Claim 23]How for a power level of said power level sequence to be in a range of 4 dB about a predetermined output power level, and to have ± 0.1 , ± 0.2 , ± 0.25 , ± 0.3 , ± 0.4 , or the step size of ± 0.5 dB in a method given in any of claims 14-22 they are.

[Claim 24]A method given in any of claims 14-23 they are mentioned above with reference to an accompanying drawing.

[Claim 25]A method changed according to a power level sequence from which a predetermined output power level of a radio signal over a different communications channel differs in a method given in any of claims 14-24 they are.

[Claim 26]A transmission method of control data in the substantially same communications system as what was mentioned above with reference to drawings.

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Drawing selection Representative drawing ☐

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